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# BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS

No. 66

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Date of Report

July 24, 1984

Vice Director for Foreign Intelligence Defense Intelligence Agency

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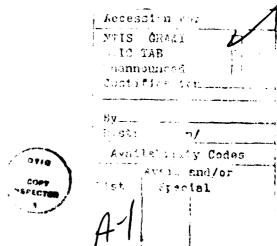
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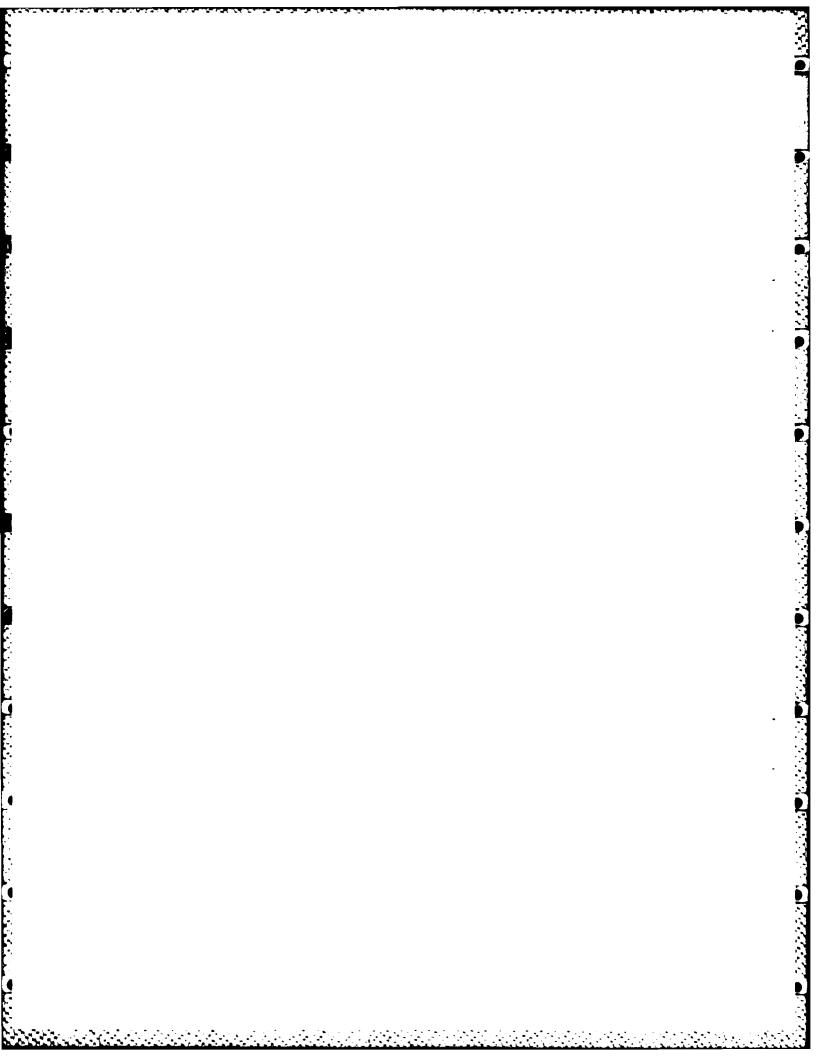
This is the Soviet Laser Bibliography for July-August 1983, and is No. 66 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; crystal growing; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; adaptive optics; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy, beam-target interaction; and plasma generation and diagnostics.

# Introduction

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is July-August 1983, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Russian Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted.

For convenience we have abbreviated frequently cited source names; a source abbreviations list and an author index are included. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry (RZh, KL) indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library. The authors' affiliations are indicated by the numbers in parentheses following the authors' names in the text and are listed in an authr affiliations. list. New affiliations are assigned a new number and are added to a cumulative list which includes all affiliations from 1969 to the present. Only those affiliations which appear in this issue are listed in this issue's author affiliations list.





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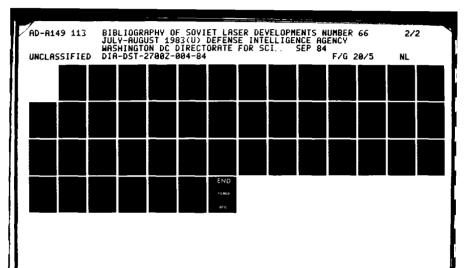
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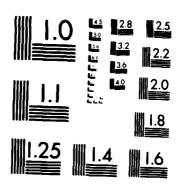
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# IV. SOURCE ABBREVIATIONS

(C:	IRC Codens)	
DAN	(DANKA)	Akademiya nauk SSSR. Doklady
DAN B	(DBLRA)	Akademiya nauk Belorusskoy SSR. Doklady
DBAN	(CRABA)	Bulgarska akademiya na naukite. Doklady
DNR	(DERUB)	Deponirovannyye nauchnyye raboty
EOM	(EOBMA)	Elektronnaya obrabotka materialov
ETP	(EXPRA)	Experimentelle Technik der Physik
FAiO	(IFAOA)	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana
FGiV	(FGVZA)	Fizika goreniya i vzryva
FiKhOM	(FKOMA)	Fizika i khimiya obrabotki materialov
FiKhS	(FKSTD)	Fizika i khimiya stekla
FM	(FNMKA)	Finommechanika, mikrotechnika [Hungary]
FTP	(FTPPA)	Fizika i tekhnika poluprovodnikov
FTT	(FTVTA)	Fizika tverdogo tela
IAN Arm	(IAAFA)	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IAN Est	(ETFMB)	Akademiya nauk Estonskoy SSR. Izvestiya. Fizika, matematika
IAN Fiz	(IANFA)	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya
IAN Tadzh	(IATOA)	Akademiya nauk Tadzhikskoy SSR. Izvestiya. Otdeleniya fiziko-matematicheskikh i geologokhimicheskikh nauk
IAN Uz	(IUZFA)	Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk.
I-FZh	(INFZA)	Inzhenerno-fizicheskiy zhurnal
IT	(IZTEA)	Izmeritel'naya tekhnika
IVUZ Priboro	(IVUBA)	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye
IVUZ Radioelek	(IVUZB)	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVUZ Radiofiz	(IVYRA)	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika
<b>JMO</b>	(JMKOA)	Jemna mechanika a optika
KE	(KVEKA)	Kvantovaya elektronika
KL	(KNLTA)	Knizhnaya letopis'
KLD	()	Knizhnaya letopis'. Dopolnitel'nyy vvpusk. Avtoreferaty dissertatsii

Kristal	(KRISA)	Kristallografiya
KSpF	(KRSFA)	Kratkiye soobshcheniya po fizike
NM	(IVNMA)	Akademiya nauk SSSR. Izvestiya. Neorganicheskiye materialy
OiS	(OPSPA)	Optika i spektroskopiya
OMP	(OPMPA)	Optiko-mekhanicheskaya promyshlennost'
Opt app	(OPAPB)	Optica applicata [Poland]
Otkr izobr	(OIPOB)	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki
Poverkh	()	Poverkhnost'. Fizika, khimiya, mekhanika
PSS	(PSSAB) (PSSBB)	Physica Status Solidi (A). Applied Research (B). Basic Research
PTE	(PRTEA)	Pribory i tekhnika eksperimenta
RiE	(RAELA)	Radiotekhnika i elektronika
RZhF	(RZFZA)	Referativnyy zhurnal. Fizika
RZhR	(RARAB)	Referativnyy zhurnal. Radiotekhnika
Sb1	sbornik	Optoelektronika, kvantovaya elektronika i prikladnaya optika. Institut kibernetiki AN GruzSSR. Tbilisi, Metsniyereba, 1983.
Sb2		Elektronnyye yavleniya v tverdykh telakh i gasakh. Azerbaydzhanskiy GU. Tematicheskiy sbornik nauchnykh trudov. Baku, 1982.
Sb3		Stolknoveniya chastits s yadrami, atomami i molekulami. Baku, 1982.
Sb4		Matematicheskoye modelirovaniye fizicheskikh protsessov. Moskva, 1982.
Sb5		Vsesoyuznaya konferentsiya po inzhenernym problemam termoyadernykh reaktorov. 2nd. Leningrad, 23-25 June 1981. Doklady. Vol. 3. Leningrad, 1982.
Sb6		Fundamental'nyye osnovy opticheskoy pamyati i sredy, no. 14, Kiyev, 1983.
Sb7		Wissenschaftliche Zeitschrift der Friedrich- Schiller-Universitat Jena. Matematisch- naturwissenschaftliche Reihe, no. 1, 1983.
Sb8		Kvantovaya elektronika, no. 24, Kiyev, Naukova dumka, 1983.
Sb9		Vsesoyuznaya konferentsiya po fizicheskoy khimii i elektrokhimii ionnykh rasplavov i tverdykh elektrolitov. 8th. Leningrad, 11-13 Oct 1983. Tezisy dokladov. Vol. 1, Fizicheskaya khimiya ionnykh rasplavov. Leningrad, Nauka, 1983.

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SCF	(SCEFA)	Studii si cercetari de fizica
Trl	trudy	Fizicheskiy institut AN SSSR. Trudy, no. 142, 1983.
Tr2		Kiyevskiy politekhnicheskiy institut. Vestnik. Seriya radioelektroniki, no. 19, 1982.
Tr3		Radiotekhnicheskiy institut AN SSSR. Trudy, no. 44, 1982.
Tr4		Kiyevskiy politekhnicheskiy institut. Vestnik. Seriya radioelektroniki, no. 20, 1983.
Tr5		Leningradskiy elektrotekhnicheskiy institut. Izvestiya, no. 328, 1983.
TVKE	(TVKED)	Tochnoye vremya i kvantovaya elektronika
UFN	(UFNAA)	Uspekhi fizicheskoy khimii
UFZh	(UFIZA)	Ukrainskiy fizicheskiy zhurnal
VMU	(VMUFA)	Moskovskiy universitet. Vestnik. Fizika, astronomiya
ZhETF	(ZETFA)	Zhurnal eksperimental'noy i teoreticheskoy fizika
ZhETF P	(ZEPFA)	Pis'ma v Zhurnal eksperimental'noy i teoreticheskoy fiziki
ZFKh	(ZFKHA)	Zhurnal fizicheskoy khimii
ZhNKh	(ZNOKA)	Zhurnal neorganicheskoy khimii
ZhPMTF	(ZPMFA)	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki
ZhPS	(ZPSBA)	Zhurnal prikladnoy spektroskopii
ZhTF	(ZTEFA)	Zhurnal tekhnicheskoy fiziki
ZhTF P	(PZTFD)	Pis'ma v Zhurnal tekhnicheskoy fiziki
ZhVMMF	(ZVMFA)	Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki
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